

**WASHINGTON STATE DEPARTMENT OF ECOLOGY  
POST OFFICE BOX 47600  
OLYMPIA, WASHINGTON 98504-7600**

**IN THE MATTER OF**

**Pacific Gas and Electric Gas Transmission Northwest  
Compressor Station 6, Rosalia Washington  
1400 SW Fifth Ave. Suite 900  
Portland, OR 97201**

**NO. PSD-01-05**

**FINAL APPROVAL  
OF PSD APPLICATION**

Pursuant to the United States Environmental Protection Agency (EPA) regulations for the Prevention of Significant Deterioration (PSD) set forth in Title 40, Code of Federal Regulations, Part 52 and regulations set forth in the Washington Administrative Code 173-400-141 and based upon the complete Notice of Construction Application (NOC) submitted by Pacific Gas and Electric Gas Transmission Northwest (PG&E GTN) on November 11, 2001, the additional information submitted on August 10, 2001, and October 12, 2001; and the technical analysis performed by the Department of Ecology (the department), the department now finds the following:

**FINDINGS:**

1. PG&E GTN proposes to modify their existing Compressor Station 6 located in Rosalia, Washington.
2. This project consists of adding one Solar Titan gas turbine rated at 19,500 horsepower and an emergency generator rated at 1,462 horsepower.
3. This project is subject to New Source Performance Standards (NSPS): Subpart GG (Standards of Performance for Stationary Gas Turbines).
4. PG&E GTN is an existing major stationary source that emits more than 250 tons of pollutants per year.
5. This project qualifies as a major modification because nitrogen oxides (NO<sub>x</sub>) have "significant" emission increases that are greater than 40 tons per year.
6. The emissions of all other air pollutants from the proposed modification are subject to review under SCAPCA Regulation I, Article V and Chapter 173-460 WAC by the Spokane County Air Pollution Control Authority.

7. PG&E GTN has elected to take a federally enforceable limit on the number of hours the Auxiliary Generator will operate each year.
8. The project will result in a potential to emit up to 85.5 tons per year of NO<sub>x</sub>.
9. Dry low-NO<sub>x</sub> control (SoLoNO<sub>x</sub>) has been determined to be Best Available Control Technology (BACT) for the control of NO<sub>x</sub> emissions from the turbine.
10. The project is located in an area that has been designated Class II for the purposes of PSD evaluation. The nearest Class I Areas are identified in Table 1 below:

Class I Area	Distance (km)
Eagle Cap Wilderness	75
Spokane Indian Reservation	160
Cabinet Mountains	215

TABLE 1.

11. The project is located in an area that is currently designated in attainment for all national air quality standards and all state air quality standards. However, the area 21 miles to the North is currently designated nonattainment for CO and PM<sub>10</sub>.
12. The ambient impacts of the proposed increase in emissions were determined with the EPA's Industrial Source Complex Short-Term Model Version 3 (ISCST3). Class I increment analysis and visibility impairment were evaluated using Calpuff.
13. Table 2 below, identifies the modeling results as compared to the Modeled Significance Level (MSL):

Pollutant	Averaging Period	Eagle Cap Wilderness (µg/m <sup>3</sup> )	Spokane Indian Reservation (µg/m <sup>3</sup> )	Cabinet Mountains (µg/m <sup>3</sup> )	MSL (µg/m <sup>3</sup> )
NO <sub>x</sub>	24-hour	0.022	0.117	0.036	1

TABLE 2.

14. The project will have no significant impact on ambient air quality.
15. The project will not have a noticeable effect on industrial, commercial, or residential growth in the Spokane area.
16. Visibility will not be significantly impaired at the Spokane Indian Reservation, Cabinet Mountains, or the Eagle Cap Wilderness.

17. The department finds that all requirements for PSD have been satisfied. Approval of the PSD application is granted subject to the following conditions.

**APPROVAL CONDITIONS:**

1. The Solar Titan combustion turbine shall be fueled by pipeline quality natural gas.
2. The Auxiliary Generator shall be fueled by pipeline quality natural gas.
3. The Auxiliary Generator shall not operate for more than 150 hours per year on a 12 month rolling average.
4. Emissions of nitrogen oxides (NO<sub>x</sub>) from the Solar Titan combustion turbine shall not exceed the limits shown in Table 3 below corrected to 15 percent oxygen and ISO conditions on a one-hour average and 85.0 tons per year on a 12 month rolling average. Initial compliance shall be determined in accordance with 40 CFR 60 Subpart GG and 40 CFR 60 Appendix A, Method 20, except that, the instrument span shall be reduced as appropriate.

Operating Conditions	Emissions
Greater than 94% NGG	25.0 ppm
90% to 94% NGG	42.0 ppm
Startup/shutdown/step to idle/load change	0.330 lb/mscf

TABLE 3.

5. Emissions of NO<sub>x</sub> from the auxiliary generator shall not exceed and 0.48 tons per year on a 12 month rolling summation calculated once per month. Initial compliance shall be determined in accordance with 40 CFR 60 Appendix A, Method 7E.
6. Compliance with Approval Condition 1 and 2 shall be monitored by affirming that only natural gas was used.
7. Compliance with Approval Condition 3 shall be monitored by installing and using a nonresetable time totalizer to measure the hours of generator operation.
8. Compliance with Approval Condition 5 shall be monitored by submitting records including the hours of operation.
9. Compliance with the NO<sub>x</sub> emission limit from the Solar Titan combustion in Approval Condition 4 shall be monitored by a Continuous Emission Monitor (CEM) for NO<sub>x</sub> and oxygen (O<sub>2</sub>) meeting the performance specifications of 40 C.F.R. Part 60, Appendix B and quality control/quality assurance requirements of 40 C.F.R. Part 60, Appendix F. After three years of operation, PG&E GTN may propose to the department for approval

of an alternate means of monitoring and reporting NO<sub>x</sub> emissions. Once approved, the alternate system may be implemented in place of a CEMS. The CEM shall be operational on or before August 1, 2002.

10. The short-term NO<sub>x</sub> emission concentrations (ppm) do not apply during startup, shutdown, load changes and step to idle periods. Emissions during startup, shutdown, load changes and step to idle periods shall be counted towards compliance with the annual emission limits, and shall be based upon vender recommendations, source data or other acceptable method of measuring excess emissions.
11. Within 180 days after initial startup, PG&E GTN shall conduct performance tests for NO<sub>x</sub> from the Solar Titan combustion turbine to be performed by an independent testing firm. A test plan shall be submitted to the Spokane County Air Pollution Control Authority and the department for approval at least 30-days prior to testing.
12. PG&E GTN shall report the following monitoring data to the Spokane County Air Pollution Control Authority and the department. It will be no longer necessary to report to the department when PSD compliance and enforcement has been delegated to the Spokane County Air Pollution Control Authority, or if the Spokane County Air Pollution Control Authority has modified Station 6's Title V permit to incorporate the conditions contained within this permit.
  - a) Submit the performance test data from the initial performance test and the performance evaluation of the CEM's using the applicable performance specifications in 40 C.F.R. Appendix B.
  - b) Submit copies of each source test.
  - c) Submit a report semiannually, or on another approved reporting schedule, and in the format approved by the department, including the following:
    - i) Calendar date or monitoring period,
    - ii) Total NO<sub>x</sub> emissions summed on a 12 month rolling average,
    - iii) Identification of any days for which NO<sub>x</sub> data were not obtained, including reasons for not obtaining sufficient data and description of corrective actions taken,
    - iv) Total duration the turbine is operating at greater than 94% NGG,
    - v) Total duration the turbine is operating between 90 and 94% NGG, and
    - vi) Total duration the turbine is operating out of SoLoNO<sub>x</sub> mode.
  - d) In addition, each semiannual report shall include:
    - i) Days for which data was not collected,
    - ii) Reasons for which data was not collected,
    - iii) Identification of times when the pollutant concentration exceeds span of the CEM,

- iv) Description of any modifications to the CEM system that could affect the ability of the system to comply with performance specifications 2 or 3, and
  - v) Results of any CEM drift tests.
- e) In addition, PG&E GTN shall maintain monitoring records on site for at least five years, and shall submit:
- i) Excess emission reports to the department and Spokane County Air Pollution Control Authority, as appropriate and
  - ii) Results of any compliance source tests.
13. Within 90 days of startup PG&E GTN shall identify operational parameters and practices that will constitute proper operation of Solar Titan combustion turbine and the Auxiliary Generator. These operational perimeters and practices shall be included in an operation and maintenance manual (O&M) for the facility. The O&M manual shall be maintained by PG&E GTN and shall be available for review by state, federal and local agencies.
14. Any activity, which is undertaken by the company or others, in a manner, which is inconsistent with the application and this determination, shall be subject to enforcement under the applicable regulations.
15. Access to the source by the Environmental Protection Agency, state, and local regulatory personnel shall be permitted upon request for the purposes of compliance assurance inspections. Failure to allow such access is grounds for an enforcement action.

16. This approval shall become invalid if construction of the project is not commenced within eighteen (18) months after receipt of the final approval, or if construction of the facility is discontinued for a period of eighteen (18) months, PG&E GTN extends the 18 month period upon satisfactorily showing that an extension is justified, pursuant to 40 C.F.R. 52.21(r)(2) and applicable EPA guidance.

**Reviewed by:**

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Richard B. Hibbard, P.E.  
Engineering and Technical Services  
Washington State Department of Ecology

DATE:\_\_\_\_\_

**Approved by:**

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Mary E. Burg  
Program Manager, Air Quality Program  
Washington State Department of Ecology

DATE:\_\_\_\_\_